

REMARKS

Claims 1-23 and 28-84 are pending. In the action, claims 1, 2, 5, 6, 8-12, 29-32, 34-36, 39-44, 46-48, 51-55, 63, 66, 67, 69-74, 77, 78, and 80-84 were rejected. Claims 3, 4, 7, 33, 37, 38, 45, 49, 50, 64, 65, 68, 75, 76, and 79 were objected to. The applicants also appreciatively note the allowance by the examiner of claims 28 and 56-62. The applicants respectfully traverse the rejections to the claims as follows.

In the action, the examiner relies on U.S. Patent No. 4,228,800 ("Degler") to anticipate claims 1, 2, 8, 10, 11, 29, 32, 34, 40-42, 44, 46, 52-54, 63, 69, and 71-72. In particular, as explained at page 4 of the action, the examiner affirms the rejections based on Degler and appears to suggest that the center electrode described in Degler corresponds to the "at least one mechanical cutting edge" recited in the independent claims. A careful read of Degler, however, clearly shows that the center electrode - even formed with beveled surfaces - does not form a mechanical cutting edge, as required by the claims. As explained throughout the applicants' specification, the mechanical cutting edge itself is used for performing cutting at an application site. On the other hand, as made clear in Degler, for example, at column 5, lines 20-41, and column 4, lines 27-29, Degler performs cutting depending on the radio frequency electrical energy in a proximal area - an application site - supplied between the circuit formed from the side and center electrodes. The beveled electrode simply forms an incision, as shown, for example, in Figure 3. Thus, while the electrode blade design in Degler can provide "a practical solution to the 'starting' problem occurring when the blade is first used to provide an initial incision," the electrode blade design does not provide a mechanical cutting edge to perform a complete cutting operation, as required by the claims. [Degler, Col. 5:20-22.] Among other things, the electrode designed as an electrode blade is not sufficiently sharp to perform a cutting procedure. In fact, the use of such electrodes at the cutting site tends to dull the blade due to the electrical discharge between the side electrodes and the center electrode.

In view of the foregoing, the applicants respectfully submit that Degler neither anticipates nor renders obvious the pending independent claims. Accordingly, the applicants respectfully request that the rejections to the claims in view of Degler be withdrawn.

The secondary references relied upon by the examiner to reject the various dependent claims also do not cure the defects of Degler. Neither Kumar, Hoskin, nor Haenggi, alone or in combination, cure the defects of Degler. In particular, Kumar discloses: "The function of cutting is the movement of an electrode through tissue while applying electrical current to individual cells. The cells which come into contact with the electrode are vaporized, which sequentially separates the tissue to produce the cutting effect." [Col. 9:47-50.] Thus, Kumar, like Degler, does not disclose a mechanical cutting edge for cutting.

Hoskin does not teach or suggest attaching an electrode to a non-mechanical cutting edge of a tip. Rather, Hoskin teaches away by using an optical fiber bundle to heat a diamond blade itself without the use of electrodes. [See e.g., Hoskin, Col. 2:38-45.] Haenggi also does not teach or suggest a tip having a mechanical cutting edge and an electrode coupled to a non-mechanical cutting edge of the tip. In fact, Haenggi, like Degler and Kumar, teaches that electrical energy is supplied to the blade in order to perform cutting procedures. [See e.g., Haenggi, Col. 6:34-38; Col. 7:46-55.] In view of the foregoing, neither Kumar, Hoskin, nor Haenggi, alone or in combination with Degler, renders the independent claims or their respective dependent claims obvious. Thus, the applicants respectfully submit the rejections to the claims as being obvious should be withdrawn.